What is claimed is:

1. An overhead cable wherein a sectional shape of an outer circumferential surface formed by outermost members is a polygon inscribing a circle of a diameter d (mm), sides of the polygon are formed as substantially flat surfaces connecting adjoining vertexes, vertexes of the polygon inscribing the circle are cut away to form arc-shaped grooves having a radius R (mm) and having a depth H (mm) from the vertexes, and the arc-shaped grooves are formed in spirals in the outer circumference of the overhead cable in a longitudinal direction of the overhead cable at predetermined pitches,

the diameter d of the overhead cable being in a range of 18 to 52 (mm), and

the outer circumferential surface formed by the outermost members being formed so that a number N of vertexes of the polygon and the diameter d satisfy a condition defined by the following formula 1:

$$N=(13.0+0.092d+0.0031d^2) \text{ rounded off} \quad (1)$$

the depth H of an arc-shaped groove and the diameter d satisfy a condition defined by the following formula 2:

$$0.00543d \leq H \leq 0.00865d \quad (2)$$

and

the radius R of an arc-shaped groove and the

depth H satisfy a condition defined by the following formula 3:

$$4.960H \leq R \leq 8.802H \quad (3)$$

2. An overhead cable as set forth in claim 1, wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of an arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-1:

$$0.00656d \leq H \leq 0.00773d \quad (2\text{-}1)$$

3. An overhead cable as set forth in claim 1, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-1a:

$$5.834H \leq R \leq 7.082H \quad (3\text{-}1a)$$

4. An overhead cable as set forth in claim 2, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-1b:

$$5.834H \leq R \leq 7.082H \quad (3\text{-}1b)$$

5. An overhead cable as set forth in claim 1,

wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of an arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-2a:

$$H=0.00721d \qquad (2\text{-}2a)$$

6. An overhead cable as set forth in claim 3, wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of an arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-2b:

$$H=0.00721d \qquad (2\text{-}2b)$$

7. An overhead cable as set forth in claim 4, wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of an arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-2c:

$$H=0.00721d \qquad (2\text{-}2c)$$

8. An overhead cable as set forth in claim 1, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following

formula 3-2a:

$$R=6.71H \qquad (3\text{-}2a)$$

9. An overhead cable as set forth in claim 2, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2b:

$$R=6.71H \qquad (3\text{-}2b)$$

10. An overhead cable as set forth in claim 3, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2c:

$$R=6.71H \qquad (3\text{-}2c)$$

11. An overhead cable as set forth in claim 5, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2d:

$$R=6.71H \qquad (3\text{-}2d)$$

12. An overhead cable as set forth in claim 6, wherein the outer circumferential surface formed by the

outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2e:

$$R=6.71H \qquad (3\text{-}2e)$$

13. An overhead cable as set forth in claim 7, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of an arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2f:

$$R=6.71H \qquad (3\text{-}2f)$$

14. An overhead cable as set forth in claim 1, wherein

the outermost members are comprised of a plurality of segments,

each segment is obtained by dividing the polygon at the vertexes, has an inner surface having a partially arc-shaped sectional shape of a radius d1 (mm) ($d1<d$), has an outer surface having a flat sectional shape connecting the adjoining vertexes, and has two corners of the flat outer surface formed to define a said arc-shaped groove of a radius R and depth H together with the corners of the adjoining segments, and

the plurality of segments being arranged so

that they adjoin each other so the corners of the adjoining segments form said arc-shaped grooves and to cover the outer circumference of the members positioned inside them and so that the plurality of arc-shaped grooves circle the overhead cable in spirals in the longitudinal direction at a predetermined pitch.